

CHELMSFORD
RURAL DISTRICT COUNCIL.

ANNUAL REPORT

OF THE

Medical Officer of Health

(JOHN F. MACDONALD, M.D., D.P.H.)

FOR

1915.

CHELMSFORD :

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Rural District Council of Chelmsford.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH.

FOR THE YEAR 1915.

MR. CHAIRMAN AND GENTLEMEN,

With the approval of the Local Government Board, the report relating to 1915 is confined to a record of what took place during the year.

Like other districts the general Death-rate was higher—the increased number of deaths occurred at all ages.

INFECTIOUS DISEASES. Considering the large number of troops moved into the district, the number of cases of infectious disease was comparatively few. During 1914 Scarlet Fever was introduced by troops into Great Baddow, and in the early part of 1915 had spread by mild unrecognised cases to the surrounding parishes.

The limited epidemic of Cerebro-Spinal Fever was also associated with the movement of troops. The original cases occurred among the soldiers.

Owing to the limited accommodation in the average cottage the billeting of troops have been a constant source of anxiety, more particularly during that part of the year when it was the practice for the soldiers to select the billets.

Although it is the duty of the Military Authorities to advise the Medical Officer of Health when troops are coming into the district, such information was not furnished. The police are the legal billeting authority, and it is usual for the officers of the Sanitary Authority to furnish a list of unsuitable billets, but such lists must necessarily be incomplete as most houses are unsuitable owing to the large number of inmates. I am afraid the police have not always made enquiries as to the number already in occupation, possibly due to the short notice given by the Military.

The method of dealing with the sewage from the Hutments in Vicarage Lane, Great Baddow, is primitive, inadequate, and likely to prove a nuisance. As suggested by the Council, the drainage from the cookhouse has been wholly diverted from the roadside ditch, but the failure of the Military Authorities to utilise the sewers has proved unsatisfactory and expensive.

At the request of the Education Committee, the Council (during the period of the War) are to control investigations of all infectious diseases among school children.

As the County Council discontinued to give any assistance as regards Cerebro-Spinal Fever, the District Council (early in 1916) made arrangements to assist medical practitioners in making lumbar punctures and taking swabs from contacts.

Again it is my privilege to thank the Council for consideration and assistance received during the year.

To Mr. Dewhirst I am indebted for particulars relating to Water Supplies and Plans, and to Mr. Edser for assistance in the preparation of this report.

I beg to remain, Gentlemen,

Your obedient servant,

JOHN F. MACDONALD.

CHELMSFORD,

31st March, 1916.

VITAL STATISTICS OF THE DISTRICT.

POPULATION. The Registrar General has estimated the population of the district in the middle of 1915 at 22,661.

The BIRTH RATE was 20·3 per 1,000 of the population.

DEATH-RATE. Similar to other districts, the general death-rate shows an increase on that of former years, and this is made more manifest by the apparent decrease in the population—the military being excluded.

Recently the Registrar-General has issued provisional vital statistics for 1915, based on the population in the middle of 1914, and on the same basis for Chelmsford Rural District the comparative figures are :—

England and Wales, crude death-rate per 1,000 of		
population	=	15·1
Chelmsford Rural District, „ „ „	=	14·8
England and Wales, after making correction for age		
and sex incidence	=	14·8
Chelmsford Rural District, „ „ „	=	12·1

It is thus shown that the district compares favourably with the country as a whole.

INFANTILE MORTALITY. The following are the comparative figures :—

Number of deaths under one year of age per 1,000		
births in England and Wales, in 1915	... =	110
Number of deaths under one year of age per 1,000		
births in Chelmsford Rural District, in 1915	=	63

WATER SUPPLIES.

WRITTLE. Owing to the number of troops in Writtle the Council, with the sanctions of the Writtle Brewery Company and the executors of the late Mr. T. Usborne, were allowed to augment their water supply by utilising the springs supplying the brewery.

The water is collected in a large reservoir or "canal," as it is known locally, and by means of underground pipes led into a storage tank in the brewery yard. In the vicinity of the storage tank the Council erected a combined $3\frac{1}{2}$ B.H.P. oil engine and pump capable of lifting 1,700 gallons of water per hour (through a connection into the mains in Bridge Street) to the water tower at Oxney Green.

Since July, 1915, when the work was completed, the district has been provided with a constant water supply. The Military Authorities contributed £60 towards the expenses, being approximately 50 per cent. of the total cost. The chemical analysis of a sample gave the following results:—

Parts per 100,000: chlorine in chlorides = 5, free ammonia = .007, albuminoid ammonia = .0068, oxygen absorbed in 3 hours at 37° c. = .065, nitric nitrogen = .82, hardness = 30° . At that time Presumptive Coli test (McConky's glucose broth) showed gas in 20 c.c., but after the "canal" was cleaned out gas was absent in 25 c.c.

BROOMFIELD. Of the 291 houses in the water area 225 had been connected to the mains by the beginning of 1916.

SCAVENGING.

The cost during the year was as follows:—Great Baddow, £73*; Ingatestone, £63*; Widford, £22*; Great Waltham, £31 4s.*; Little Waltham, £20 16s*.; Broomfield, £85; Rettendon (Battlesbridge), £13.

SANITARY INSPECTION.

The Table prepared by Mr. Edser does not include work undertaken on behalf of the Military.

*Does not include the following incurred owing to the large number of troops in the district:—Great Baddow, £25 11s. 6d.; Ingatestone, £21 18s. 6d.; Great and Little Waltham, £8 12s. 6d.; and Writtle, £39 3s. 0d.

SUMMARY OF WORK done through the Sanitary Inspector
in the Rural District of Chelmsford during the year
ending December 31st, 1915.

	Total Number for year.	Notes, Results of Inspection, &c.
1. Complaints received...	15	
2. Nuisances detected without complaint	370	
3. Nuisances abated	320	
4. Nuisances remaining unabated	65	
5. Formal notices served	247	
6. Summonses taken out	Nil	
7. Convictions obtained	Nil	
8. Lodging-houses inspected. Frequency of inspection	Nil	
9. Slaughter-houses inspected. Frequency of inspection	17	Quarterly
10. Bakehouses inspected. Frequency of inspection	42	Twice annually
11. Dairies and Milkshops inspected. Frequency of inspection	8	Quarterly
12. Cowsheds inspected. Frequency of inspection	127	Quarterly
13. No. of samples of milk taken for exam- ination for cleanliness, tubercle bacilli, etc.	Nil	
14. Filthy houses cleansed, sec. 46 Public Health Act, 1875	2	
15. Houses disinfected	99	
16. Overcrowding abated	7	
17. Houses erected or re-built for which Water "Certificates" were applied	15	
18. "Certificates" granted	11	
19. " " deferred	4	
20. Public Wells, total No. in District	54	
21. New Public Wells sunk or improved supplies of Water afforded	Nil	
22. Wells cleansed or repaired	Nil	
23. Wells closed	Nil	
24. Privies, No. in District	1323	
25. " " No. abolished during the year	8	
26. Pail Closets, No. in District	2719	
27. Water closets, No. in District with- out flushing cistern	427	
28. Water closets with flushing cisterns	1387	
29. Privies and W.C.s repaired	19	
W.C.s supplied with water	3	
30. Water cisterns cleansed, repaired, or covered	Nil	
31. Animals improperly kept removed	1	
32. Samples of water taken for analysis	66	
33. Compensation paid for destruction of infected bedding	Nil	
34. Seizures of unsound meat, &c.	Nil	

WILLIAM EDSER

Inspector of Nuisances.

HOUSING INSPECTION.

Owing to the existing conditions the number of inspections carried out was limited, as seen by the Table on page 7.

During the year the Council approved of plans for 30 new dwelling-houses and issued habitation certificates for 24.

Mr. Dewhirst has kindly provided the following table relating to the plans approved by the Council:—

		New Dwelling Houses.		Other Buildings.		Additions to Dwellings Houses.		Additions to other Buildings.	
Boreham ...	...	—	...	—	...	1	.	—	
Broomfield	...	—	...	2	...	3	...	—	
Buttsbury...	...	6	...	2	...	—	..	—	
Chignal ...	...	2	...	1	...	2	...	—	
Danbury ...	...	1	...	2	...	—	...	1	
Great Baddow	...	4	...	5	...	—	...	—	
Great Leighs	...	—	...	1	...	1	...	—	
Great Waltham	...	—	..	1	...	—	...	—	
Ingatestone	...	2	...	2	...	—	...	1	
Little Baddow	...	1	...	—	...	2	...	—	
Little Waltham	...	—	...	—	...	1	...	—	
Margaretting	...	—	...	—	...	2	...	—	
Pleshey ...	...	—	...	—	...	1	...	1	
Rettendon	...	5	...	1	...	1	...	—	
Sandon ..	...	6	...	1	...	—	...	—	
Stock ..	...	3	...	—	...	2	...	—	
Woodham Ferris	...	—	...	4	...	—	...	—	
Writtle ...	...	—	...	—	...	—	...	1	
		—		—		—		—	
		30		22		16		4	
		—		—		—		—	

Parishes.	The Number of Houses inspected for the purposes of Section 17 of the Act of 1909.	The Number of Houses which were considered to be in a state as to be unfit for human habitation.	The Number of representations made to the Local Authority with a view to Closing Orders being made.	The Number of Closing Orders made.	The Number of Houses the defects in which were remedied without Closing Orders being made.	The Number of Houses, which after Closing Orders were put into a state fit for habitation.	The general character of the defects found to exist.
GREAT BADDOW ..	19	Nil	Nil	Nil	Nil	Nil	Defective Windows and Spouting, insufficient light and ventilation.
LITTLE BADDOW ..	3	3	2	2	1	Nil	
WOODHAM FERRIS ..	5	5	5	5	Nil	Nil	
Totals ..	27	8	7	7	1	Nil	

INFECTIOUS DISEASES.

The Table on page 10 shows the number of notifications received, arranged according to parish and diseases.

SCARLET FEVER 53 cases (50 civil and 3 Military). The epidemic which occurred in Great Baddow towards the end of 1914 showed slight recrudescence during the early part of 1915, and by means of mild unrecognised cases spread to Danbury and Sandon—these three parishes being responsible for 31 of the total cases notified during the year.

DIPHTHERIA 30 cases (25 civil and 5 military). No fewer than 16 cases were known to have been infected directly or indirectly from sources outside the district.

ENTERIC FEVER. The only notification related to a soldier brought into the district suffering from the disease.

CEREBRO-SPINAL FEVER 8 cases (3 civil and 5 military). Of the civil cases only one proved fatal. In one family, shortly after a case of Cerebro-Spinal Fever had been removed to hospital a baby died suddenly of "convulsions"—it is possible the illness might have been acute Cerebro-Spinal Fever.

Although all contacts were examined the meningococcus was not detected in the pharynx of any.

Of the Military cases, at least one was incubating the disease when he came into the district.

MEASLES. The epidemic was more or less general throughout the district.

SCHOOL CLOSURE.

Galleywood—

April 12—16, owing to the prevalence of Scarlet Fever.

Sandon—

December 21—23, ,, ,, ,,

Stock C. E.—

January 11—29, ,, ,, Measles.

Stock R. C.—

January 11—29, owing to the prevalence of Measles.

Broomfield—

June 16—24, ,, ,, ,,

Great Leighs Cl.—

June 3—28, , ,, ,,

Great Waltham—

June 7—July 5, ,, ,, ,,

West Hanningfield—

August 3—16, ,, ,, Whooping Cough.

Radley Green—

February 1—12, ,, ,, Influenza.

DISTRIBUTION OF INFECTIOUS DISEASES DURING THE
YEAR 1915.

	Diphtheria.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Cerebro Spinal Meningitis.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Measles.	German Measles.	Chicken Pox.	Puerperal Fever.	Total.
<i>Ingatestone Sub-District</i>												
Stock and Buttsbury	7		1					54				62
East Hanningfield ...			1					2		1		4
West Hanningfield ..								6				6
South Hanningfield			2					8				10
Ingatestone and Fryerning... ..	3		2					139	+1			145
Margaretting	6							3				9
Rettendon		1						26		2		29
Runwell			1					12				13
Woodham Ferris ...	†4		6					1				11
<i>Chelmsford Sub-District</i>												
Widford				†1				2				3
Writtle	†1	1	†1		†1			74		4		82
Roxwell		1						4				5
<i>Great Waltham Sub-District—</i>												
Boreham	†2							5		34		41
Broomfield	1	1	†2					16				20
Chignall	2							12				14
Good Easter... ..								5				5
Great Leighs		1	1					66		3		71
Little Leighs								4				4
Great Waltham			3					187		29		219
Little Waltham ...	†1	1	1					8				11
Mashbury												
Pleshey			1					4		2		7
<i>Great Baddow Sub-District—</i>												
Danbury		1	4		†1			8	1			15
Great Baddow ..	†3	†3	†22		†3			13		18		62
Sandon			5					5		2		12
Springfield					1			25				26
Little Baddow ...					†2			1		1	1	5
Total	30	10	53	1	8			690	2	96	1	891

† One soldier included.

‡ Two soldiers included.

Total among the troops being : Scarlet Fever 3, Diphtheria 5,
Enteric Fever 1, Cerebro-Spinal Fever 5, Erysipelas 1,
German Measles 1 ; total 16.

TABLE I.
RURAL DISTRICT OF CHELMSFORD.
VITAL STATISTICS OF WHOLE DISTRICT DURING 1915 AND PREVIOUS YEARS.

YEAR.	Population estimated to middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 year of age		At all ages.	
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1910	22,770	438	438	19.2	260	11.4	8	25	42	96.0	277	12.2
1911	22,830	481	486	21.3	234	10.2	3	44	42	86.4	275	12.0
1912	23,080	510	517	22.4	232	10.5	6	47	38	73.5	273	11.8
1913	23,233	520	525	22.6	239	10.3	14	36	31	59.0	261	11.2
1914	23,503	438	441	18.7	219	9.3	6	68	16	36.3	281	11.9
1915	22,661	454	460	20.3	309	13.6	25	65	29	63.0	349	15.4
Area of District in acres (land and inland water), 82,045.										Total population at all ages, 22,791		
										Number of Inhabited Houses, 5,575		
										At Census, 1911.		

TABLE II.
RURAL DISTRICT OF CHELMSFORD.
CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR, 1915.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages	At Ages—Years.						45 to 65	65 and upwards
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65		
Small-pox .. ..	...	...	...	...	...	...	...	...	...
Cholera and Plague .. ..	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)	25	4	15	5	1	...	...	...	...
Erysipelas	9	1	1	...	4	...	2	1	19
Scarlet Fever	50	10	36	3	...	...	1	...	43
Typhus Fever .. ..	...	...	...	...	...	...	...	...	...
Enteric Fever .. ..	...	...	...	...	...	...	...	...	...
Relapsing Fever .. ..	...	...	...	...	...	...	...	...	...
Continued Fever .. ..	...	...	...	...	...	...	...	...	...
Puerperal Fever	1	...	...	...	...	1	...	...	...
Cerebro-spinal Meningitis	3	...	2	...	...	1	...	...	3
Polio-myelitis .. ..	...	...	...	...	...	...	...	...	...
Ophthalmia Neonatorum	32	...	5	9	...	14	3	1	...
Pulmonary Tuberculosis	3	...	2	1	...	...	2	...	...
Other forms of Tuberculosis	690	222	392	27	27	...	...	...	...
Measles	1	22	69	3	...	1	...	...	...
German Measles	96	...	...	...	2	...	...	...	...
Chicken Pox .. ..	...	...	...	...	...	...	...	...	...
Totals	910	259	522	48	51	8	2	65	...

Isolation Hospitals :—Chelmsford Joint Hospital, Great Baddow; total available beds, 43; number of diseases that can be concurrently treated, 3; Small Pox Hospital at Galleywood, 4 beds.

TABLE III.

RURAL DISTRICT OF CHELMSFORD—CAUSES OF, AND AGES AT, DEATH DURING YEAR 1915.

CAUSES OF DEATH.		NETT DEATHS AT THE SUBJOINED AGES OF RESIDENTS WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.							TOTAL DEATHS WHETHER OF "RESIDENTS" OR "NON-RESIDENTS" IN INSTITUTIONS IN THE DISTRICT.	
		Under 1.	1 and 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.		
		All ages.	1 and 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.		
1		2	3	4	5	6	7	8	9	10
All causes { Certified ... { Uncertified ...		343 6	29 ...	11 ...	9 ...	19 ...	7 ...	35 ...	63 1	170 5
Enteric Fever	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...
Influenza	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis)	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases...	...	...	...	...	...	...	...	...	...	...
Cancer, Malignant Disease	...	...	...	...	...	...	...	...	...	...
Rheumatic Fever	...	...	...	...	...	...	...	...	...	...
Meningitis	...	...	...	...	...	...	...	...	...	...
Organic Heart Disease	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms)	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respiratory Organs...	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis	...	...	...	...	...	...	...	...	...	...
Appendicitis and Typhilitis...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver	...	...	...	...	...	...	...	...	...	...
Alcoholism	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	...	...	...	...	...	...	...	...	...	...
Other accidents & diseases of Preg. & Parturition	...	...	...	...	...	...	...	...	...	...
Congen. Debility & Malforma. includ. Prema. Birth	...	...	...	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide	...	...	...	...	...	...	...	...	...	...
Suicide	...	...	...	...	...	...	...	...	...	...
Other Defined Diseases	...	...	...	...	...	...	...	...	...	...
Diseases ill-defined or unknown	...	...	...	...	...	...	...	...	...	...
TOTALS	...	349	29	11	9	19	7	35	64	175
Sub-Entries { Cerebro-Spinal Meningitis	...	2	...	...	...	2	...	...	...	...
{ Pneumonia	...	14	1	...	2	3	...	2	5	1

TABLE IV.
RURAL DISTRICT OF CHELMSFORD—INFANT MORTALITY DURING THE YEAR 1915.
Nett Deaths from stated causes at various Ages under 1 Year of age.

Cause of Death.	Under 1 week		1-2 weeks.		2-3 weeks.		3-4 weeks.		Total under 1 month.		1-3 months.		3-6 months.		6-9 months.		9-12 months.		Total Deaths under One Year.	
	Certified	Uncertified																		
All Causes	11	..	2	..	1	..	1	..	15	..	1	..	5	..	4	..	4	..	29	..
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria and Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Abdominal Tuberculosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Tuberculous Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Meningitis (<i>not Tuberculous</i>)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Convulsions	1	..	..	..	..	..	..	..	1	..	..	..	2	..	..	..	..	..	3	..
Laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bronchitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pneumonia (all forms)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea	..	..	1	..	..	..	..	..	1	..	..	..	1	..	2	..	1	..	3	..
Enteritis	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	4	..
Gastritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Syphilis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rickets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Suffocation, overlying	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Injury at Birth	2	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	2	..
Atelectasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Congenital Malformations	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Premature Birth	7	..	1	..	..	..	..	..	9	..	..	..	..	..	..	..	..	..	9	..
Atrophy, Debility, and Marasmus	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..
Other Causes	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	3	..
TOTALS	11	..	2	..	1	..	1	..	15	..	1	..	5	..	4	..	4	..	29	..

Nett Births in the year { legitimate, 431.
illegitimate, 29.

Nett Deaths in the year of { legitimate infants, 26
illegitimate infants, 3